

U.S. Patent Application Serial No. 10/560,049
Response to OA dated August 22, 2007

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AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (cancelled):

Claim 2 (cancelled):

Claim 3 (currently amended): The A contaminated liquid filtration system vehicle according to Claim 2, which travels to a contaminated liquid collection unit in a factory or the like and treats the contaminated liquid within the collection unit, comprising:

vehicle driving unit comprising a driving engine and a driving mechanism;

suction unit for aspirating the contaminated liquid within said contaminated liquid collection unit as liquid to be treated;

a filtration system constituted by a charged filter device, a charged coalescer type oil water separator, and a microfiltration device comprising hollow fiber membranes of an internal pressure circulation system, for filtration treating the aspirated liquid to be treated;

electric power supply unit for supplying a driving power source to said filtration system;

delivery unit for returning treated liquid which has been treated in said filtration system to the same or a different collection unit in the factory or the like; and

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control unit for controlling operations of said filtration system,

wherein said charged filter device is caused to advance the filtration of impurity particles by applying a voltage between electrodes within said charged filter device using the driving power source supplied from said electric power supply unit,

said charged coalescer type oil water separator is caused to advance oil water separation by applying a voltage between electrodes within the oil water separator using the driving power source supplied from said electric power supply unit, and

wherein the discharge path to discharge the concentrated liquid bifurcates from the primary side circulation path of said microfiltration device, the open/close valve is provided on the discharge path, a concentration detection unit for detecting the density of the concentrated liquid is provided on said primary side circulation path, and said control unit control the discharge of said concentrated liquid by opening the open/close valve when the concentration of the concentrated liquid in the primary side circulation path, which is detected by said concentration detection unit, exceeds a predetermined value.

Claim 4 (previously presented): The contaminated liquid filtration system vehicle according to claim 3, wherein said concentration detection unit is constituted by a pressure sensor for detecting pressure change inside the primary side circulation path, and concentration variation is detected indirectly thereby according to the viscous resistance of the liquid to be treated flowing through said circulation path.

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Claim 5 (cancelled):

Claim 6 (currently amended): The A contaminated liquid filtration system vehicle according to Claim 2, which travels to a contaminated liquid collection unit in a factory or the like and treats the contaminated liquid within the collection unit, comprising:

vehicle driving unit comprising a driving engine and a driving mechanism;

suction unit for aspirating the contaminated liquid within said contaminated liquid collection unit as liquid to be treated;

a filtration system constituted by a charged filter device, a charged coalescer type oil water separator, and a microfiltration device comprising hollow fiber membranes of an internal pressure circulation system, for filtration treating the aspirated liquid to be treated;

electric power supply unit for supplying a driving power source to said filtration system;

delivery unit for returning treated liquid which has been treated in said filtration system to the same or a different collection unit in the factory or the like; and

control unit for controlling operations of said filtration system,

wherein said charged filter device is caused to advance the filtration of impurity particles by applying a voltage between electrodes within said charged filter device using the driving power source supplied from said electric power supply unit,

said charged coalescer type oil water separator is caused to advance oil water separation by applying a voltage between electrodes within the oil water separator using the driving power source

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supplied from said electric power supply unit, and

wherein the discharge path to discharge the concentrated liquid bifurcates from the primary side circulation path of said microfiltration device, the open/close valve is provided on the discharge path, and said control unit output a warning signal such as a light or sound for advancing opening of said open/close valve following the elapse of a predetermined time period set in accordance with the type of the liquid to be treated.

Claim 7 (currently amended): The contaminated liquid filtration system vehicle according to claim [[1]] 3, comprising a sensor for detecting irregularities in the pump of said microfiltration device and warning unit for making a warning signal on the basis of irregularities in the pump detected by said sensor.

Claim 8 (cancelled):

Claim 9 (currently amended): The contaminated liquid filtration system vehicle according to claim [[1]] 3, wherein a suction pipe for aspirating the contaminated liquid in the contaminated liquid collection unit is provided as said suction unit, an electromagnetic valve is provided at a point on the channel of said suction pipe for opening and closing said channel, and said control unit prevent improper use by closing said electromagnetic valve during said draining.

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Claim 10 (currently amended): The contaminated liquid filtration system vehicle according to claim [[1]] 3, comprising an image capturing device to capture images of constitutional elements such as the piping of the filtration system, and a memory device for storing and managing image information captured by said image capturing device.

Claim 11 (currently amended): The contaminated liquid filtration system vehicle according to claim [[1]] 3, comprising a power generating device serving as said electric power supply unit which is driven by the driving engine constituting said vehicle driving unit.

Claim 12 (currently amended): The contaminated liquid filtration system vehicle according to claim [[1]] 3, wherein said filtration system is installed on a load-carrying platform which is removably connected to the vehicle main body, and said filtration system is constituted so as to be detachable with a cargo compartment.

Claim 13 (currently amended): The contaminated liquid filtration system vehicle according to claim [[2]] 3, comprising a sensor for detecting irregularities in said open/close valve and warning unit for outputting a warning signal on the basis of the irregularities in the open/close valve detected by said sensor.

Claim 14 (currently amended): The contaminated liquid filtration system vehicle according

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to claim [[2]] 3, comprising a sensor for detecting irregularities in the pump of said microfiltration device and warning unit for making a warning signal on the basis of irregularities in the pump detected by said sensor.

Claim 15 (currently amended): The contaminated liquid filtration system vehicle according to claim [[2]] 3, wherein a suction pipe for aspirating the contaminated liquid in the contaminated liquid collection unit is provided as said suction unit, an electromagnetic valve is provided at a point on the channel of said suction pipe for opening and closing said channel, and said control unit prevent improper use by closing said electromagnetic valve during said draining.

Claim 16 (currently amended): The contaminated liquid filtration system vehicle according to claim [[2]] 3, comprising an image capturing device to capture images of constitutional elements such as the piping of the filtration system, and a memory device for storing and managing image information captured by said image capturing device.

Claim 17 (currently amended): The contaminated liquid filtration system vehicle according to claim [[2]] 3, comprising a power generating device serving as said electric power supply unit which is driven by the driving engine constituting said vehicle driving unit.

Claim 18 (currently amended): The contaminated liquid filtration system vehicle according

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to claim [[2]] 3, wherein said filtration system is installed on a load-carrying platform which is removably connected to the vehicle main body, and said filtration system is constituted so as to be detachable with a cargo compartment.

Claim 19 (cancelled):

Claim 20 (cancelled):

Claim 21 (cancelled):

Claim 22 (cancelled):

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